

The Examiner states in part:

As per claim 1, Dias discloses supplying a variable voltage to said memory integrated circuit (abstract, figure 5 and column 2, lines 11-14) and generating address and control signals (column 14, lines 14-22 and figure 5).

As per claim 21, Dias discloses supplying a variable voltage to said memory integrated circuit (abstract, figure 5 and column 2, lines 11-14) and supplying different voltages during different periods (figure 5, abstract and column 14, lines 14-22).

As per claim 23 Dias discloses supplying a variable voltage to said memory integrated circuit (abstract, figure 5 and column 2, lines 14-22 and figure 5).

Dias et al does not disclose a variable voltage as the Examiner asserts, nor does Dias et al disclose different voltages during different periods as the Examiner asserts. Rather, Dias et al discloses means for maintaining a regular supply voltage to a DRAM after a power supply failure has occurred. Dias et al states "When a power fault is detected, the controller provides the DRAMS with both a regular supply voltage and appropriately timed refresh signals" (Abstract, emphasis added).

Dias et al fails to disclose or suggest the invention recited in Claim 1 as amended which reads in part "...variable voltage being less during...periods of no data access activity than during...periods of data access activity....".

Dias et al also fails to disclose or suggest the invention recited in Claim 21 which reads in part "means to supply to said memory integrated circuit a first voltage during said first operation period, a second voltage different from said first voltage during said second operation period, and a third voltage different from said first and second voltages during said third operation period."

Dias et al fails to disclose or suggest the invention recited in Claim 23 as amended which reads in part "...said

variable voltage being less during periods of no data access activity than during periods of data access activity..."

In view of the amendments to claims 1 and 23 and in view of the above discussion, Applicant respectfully requests that the rejection of claims 1-23 be withdrawn.

The Examiner rejected claims 1-23 under U.S.C. § 102(e) as being clearly anticipated by Fung. The rejection is respectfully traversed.

Fung does not disclose "supplying a variable voltage to.. memory integrated circuit" as the Examiner asserts, nor does Fung disclose "supplying different voltages at different periods" to a memory as the Examiner also asserts. Rather, Fung discloses several other ways of reducing power consumption in a computer. Fung states "During periods of inactivity, power consumption is reduced in different ways, for example, by reducing clock speeds or removing clocks, and/or by removing power, and/or by controlling the refresh frequency to memory." (Fung column 3, line 66 to column 4, line 2, emphasis added). The term removing power refers to switching power off when not needed by means of switches in switch unit 22 (Fig. 1).

Fung fails to disclose or suggest the elements of claims 1, 21 and 23 recited above in the discussion of the rejection in view of Dias et al. Therefore, Applicant respectfully requests withdrawal of the rejection based on Fung of claims 1-23.

Claims 1 and 23 as amended are supported in the application, for example, where it is stated "Hence, during periods of no data access activity, a minimal voltage is supplied to memory. During periods of data access activity, a greater operational voltage is supplied to memory." (page 6, lines 6-9).

Claim 8, as amended for clarification, is supported in the application by the statement "For DRAMS, data access activity

includes both memory refresh and memory access." (page 6, lines 11-12). and by Fig. 2b in which standby periods are shown and by the discussion of Fig. 2b at page 13, lines 16-20.

Claims 1-23 are believed to be allowable. It is respectfully requested that claims 1-23 be allowed and that the application be passed to issue. If there are any questions, the Examiner should call the undersigned at (408) 453 9200.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C., 20231, on July 26, 1996.

July 26, 1996
Date of Signature


Attorney for Applicants